

In the United States Patent and Trademark Office

Applicants: Robert A. Moskovich et al.

Serial No.: 10/672,815

Filing Date: September 26, 2003

For: **Flexible Toothbrush Head**

Examiner: M. Spisich

Art Unit: 1744

Confirmation No.: 8916

Attorney Docket No.: 7127-00

DECLARATION UNDER 37 C.F.R. 1.131

Dear Sir:

We, Robert A. Moskovich, and Michael C. Rooney, hereby state as follows:

1. We are co-inventors of pending claims 1-8 of the above identified patent application.

2. The invention of independent claim 1 was reduced to practice prior to March 17, 2003, as evidenced by the following attached documents:

a. An Invention Record (attached as Exhibit A), the dates included therein having been redacted, which shows the reduction to practice of a head for use with a toothbrush having an outer perimeter portion formed of a rigid material, the rigid material being adapted to allow the head to be sonically welded; and a tuft field positioned within the outer perimeter portion and being formed of a flexible elastomer, with the tuft field defining one or more apertures to receive one or more bristle tufts, and the head being adapted to be sonically welded into place in a toothbrush, as required by independent claim 1.

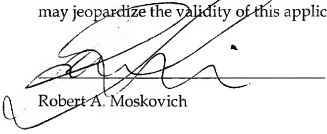
b. A drawing (attached as Exhibit B) of a head having a flexible elastomer tuft field with apertures defined therein, and a rigid outer perimeter.

c. A drawing (attached as Exhibit C) of a head having a flexible elastomer tuft field with apertures defined therein and bristles inserted into the apertures, and a rigid outer perimeter.

d. A drawing (attached as Exhibit D) of a head having a flexible elastomer tuft field with apertures defined therein and bristles inserted into the apertures, and a rigid outer perimeter, the rigid outer perimeter being secured to a toothbrush.

3. The date of the Invention Record (Exhibit A) and the date of the three drawings of Exhibits B, C, and D are all prior to the March 7, 2003 priority date of U.S. Patent No. 6,988,777 to Pfenniger.

4. We hereby declare further that all statements made herein of our own knowledge are true and that statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine and/or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that any such willful false statement may jeopardize the validity of this application or any patent resulting therefrom.



Robert A. Moskovich

Michael C. Rooney

01-23-2007

Date

Date

d. A drawing (attached as Exhibit D) of a head having a flexible elastomer tuft field with apertures defined therein and bristles inserted into the apertures, and a rigid outer perimeter, the rigid outer perimeter being secured to a toothbrush.

3. The date of the Invention Record (Exhibit A) and the date of the three drawings of Exhibits B, C, and D are all prior to the March 7, 2003 priority date of U.S. Patent No. 6,988,777 to Pfenniger.

4. We hereby declare further that all statements made herein of our own knowledge are true and that statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine and/or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that any such willful false statement may jeopardize the validity of this application or any patent resulting therefrom.

Robert A. Moskovich

Michael C. Rooney
Michael C. Rooney

Date

January 23, 2007
Date

Invention Record No. 7127



Colgate Palmolive Company

SUMMARY OF THE INVENTION: (What have you done and why do you believe it is innovative?) no more than 50 words
Rigid plastic materials are being used in the head plates that are sonically welded to handles in Anchor Free Tufting for the production of toothbrushes. This invention envisions the use of flexible materials to retain the tufts in the head plates.

INVENTOR NAME(S): (Full legal name required, Residence, Title, Citizenship and Date of Birth.)

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East Brunswick, NJ 08816
US
2/7/56

Mike Rooney
63 Locust Avenue
Millburn, NJ 07041
US
11/2/51

DETAILED DESCRIPTION OF THE INVENTION: (What problem have you solved? Give experimental results which demonstrate your invention. Include all controls and comparison testing which highlight and show advantages of your invention over prior art. Negative experiments should be included to demonstrate inventive nature of your positive results.)

In the AFT process, the head plate is typically made from a rigid plastic that is conducive to sonic welding. The head plate is designed with a solid perimeter and then has a field of variously shaped and sized holes within this perimeter. Fiber for the tufts are then placed in the holes in the field and the backs melted. This tufted plate is then inserted into the head portion of the handle and sonically welded into place. It is then end-rounded and packaged similar to a traditional toothbrush.

The desire to make a field of bristle and a toothbrush head that will move or flex under normal brushing conditions can utilize the AFT process but with different materials to give a commercially appealing product. One of the issues with utilizing standard elastomeric materials for the head plates is that they are unable to be sonically welded as they absorb and dissipate the vibrational energy during sonic welding.

In this case, the head will consist of a minimum of two materials. The perimeter of the head will consist of a rigid material that lends itself to be sonically welded such as polypropylene. The tuft field will be made of a flexible elastomer (90 shore A or less) that allows the field to move or flex under pressure. Thus by designing the head plate and the handle in such a manner to allow the tuft field to move, normal brushing conditions will cause both the tufts and the elastomeric field to move.

PRIOR WRITTEN DOCUMENTS: (List all patents, publications, manufacturer's literature, etc. to which you have personal knowledge and which you believe, as a reasonable investigating scientist, is material (pertinent) to your invention. Please provide copies of all publications and manufacturer's literature.)

EARLIEST CONCEPTION DATE: (When did you first think of the invention? Give the date and place where first written statement of the invention appears.)
[REDACTED]

EARLIEST DATE OF DISCLOSURE TO OTHERS: (State to whom and when. Provide a written record and date if available.)

Bruce M. Russell, Yuri Moskovich, Alan Sorrentino,

DATE OF EARLIEST SKETCH, DRAWING, SCHEMATIC COMPOUND, FORMULATION, ETC.: (Attach original or photocopy thereof. If same as "Earliest Conception Date" or "Earliest Date of Disclosure to Others" please state.)
[REDACTED]

EARLIEST DATE AND PLACE OF REDUCTION TO PRACTICE: (Actual working of invention [for example, the preparation of formulation, making of apparatus, etc.], have place, date and witness if available. Also first date of witnessed experiment if initial experiment is not witnessed. Include all notebook and page numbers.)

Sample Type only plates made and tufted at Boucherie

This invention is understood by the undersigned who have witnessed the signature(s) of the inventor(s):

SIGNATURE(S) OF INVENTOR(S):

Date: [REDACTED]

Date: [REDACTED]

Signature: [Signature]

Signature: [Signature]

Print Name: ROBERT MOSKOVICH

Print Name: MICHAEL C. ROONEY

SIGNATURE(S) OF WITNESS(ES):

Date: [REDACTED]

Date: [REDACTED]

Signature: [Signature]

Signature: [Signature]

Print Name: FRANCIS P. PACIULLO

Print Name: ALAN CORRENTINO

